

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A detachable keypad capable of being attached and detached from a mobile phone, the keypad for transmitting DTMF signals to the mobile phone, the keypad comprising:

an earphone-microphone jack;

a key array; and

a DTMF (Dual Tone Multi-Frequency) generator,

wherein when the keypad is detached from the mobile phone and a key of the key array is pressed while an earphone plug of an earphone-microphone set is inserted into the earphone-microphone jack, a DTMF signal is generated by the DTMF generator corresponding to the pressed key and is transmitted to a microphone of the mobile phone through an earphone-microphone speaker of the earphone-microphone set.

2. (Original) A mobile phone comprising:

a microphone;

an earphone-microphone speaker fixing portion for fixing an earphone-microphone speaker at a position enabling the microphone to receive sound from the earphone-microphone speaker;

an audio/DTMF (Dual Tone Multi-Frequency) separator for separating a signal received at the microphone into an audio signal and a DTMF signal; and

a controller for analyzing the DTMF signal and performing an operation according to the analyzed DTMF signal.

3. (Original) The mobile phone of claim 2, further comprising a display, wherein the controller analyzes the DTMF signal and if the DTMF signal represents a digit or a character, the controller controls the display to display the digit or character.

4. (Original) The mobile phone of claim 2, wherein the earphone-microphone speaker fixing portion is a magnet.

5. (Currently amended) A ~~detachable~~ keypad capable of being attached and detached from a mobile phone, the keypad for transmitting DTMF signals to the mobile phone, the keypad comprising:

an earphone-microphone jack;
an earphone-microphone sensor for checking whether an earphone-microphone plug of an earphone-microphone set is inserted into the earphone-microphone jack;
a key array;
a key press sensor for sensing the pressing of each key of the key array;
a DTMF (Dual Tone Multi-Frequency) generator for generating a DTMF signal; and
a controller for controlling the DTMF generator to generate a DTMF signal
corresponding to a pressed key if pressing of the key is sensed while the keypad is detached from the mobile phone and the earphone-microphone plug of the earphone-microphone set is inserted into the earphone-microphone jack, and for transmitting the DTMF signal to an earphone-microphone speaker of the earphone-microphone set through the earphone-microphone jack and plug.

6. (Currently Amended) The ~~detachable~~ keypad of claim 5, further comprising:
a key volume control signal generator for generating a key volume control signal if the key press sensor senses input of a key volume control key; and
an amplifier for amplifying the DTMF signal received from the DTMF generator by a predetermined level in response to the key volume control signal.

7. (Currently amended) A mobile phone with a ~~detachable~~ keypad capable of being detached from the mobile phone comprising:
a microphone;
an earphone-microphone speaker fixing portion for fixing an earphone-microphone speaker at a position enabling the microphone to receive sound from the earphone-microphone speaker;
an audio/DTMF (Dual Tone Multi-Frequency) separator for separating a signal received

at the microphone into an audio signal and a DTMF signal; and

a controller for analyzing the DTMF signal and performing an operation according to the analyzed DTMF signal;

wherein the detachable keypad comprises an earphone-microphone jack, a key array, and a DTMF (Dual Tone Multi-Frequency) generator, wherein when a key is pressed while an earphone plug is inserted into the earphone-microphone jack, a DTMF signal is generated by the DTMF generator corresponding to the pressed key and is transmitted to the microphone of a mobile phone through the earphone-microphone speaker.